What is claimed is:

1. A method of treating a mammal having type 1 diabetes or at risk for type 1 diabetes, the method comprising administering to the mammal a pharmaceutical composition comprising an agent that inhibits a macrophage migration inhibitory factor (MIF) in the mammal, wherein the agent is a polypeptide or a polynucleotide.

2. The method of claim 1, wherein the agent comprises a binding site of an antibody that binds specifically to the MIF.

3. The method of claim 2, wherein the agent is an antibody.

4. The method of claim 1, wherein the agent is an aptamer that binds specifically to the MIF.

5. The method of claim 1, wherein the agent inhibits expression of the MIF.

6. The method of claim 5, wherein the agent is an antisense nucleic acid or mimetic specific for MIF mRNA in the mammal.

7. The method of claim 5, wherein the agent is a ribozyme nucleic acid or mimetic specific for MIF mRNA in the mammal.

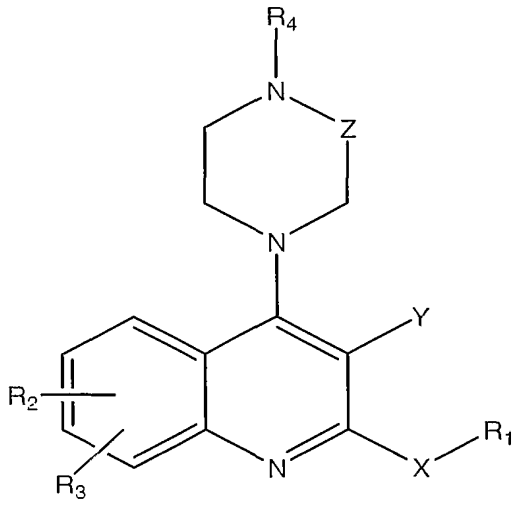
8. The method of claim 5, wherein the agent is an inhibitory RNA or mimetic specific for MIF mRNA in the mammal.

9. The method of claim 1, wherein the mammal has or is at risk for having diabetes, impaired glucose intolerance, stress hyperglycemia, metabolic syndrome, and/or insulin resistance.

10. The method of claim 1, wherein the mammal is a rodent.

11. The method of claim 1, wherein the mammal is a human.

12. A method of treating a mammal having type 1 diabetes or at risk for type 1 diabetes, the method comprising administering to the mammal a pharmaceutical composition comprising an agent that inhibits a macrophage migration inhibitory factor (MIF) in the mammal, wherein the agent is an organic molecule comprising the following structure I or II



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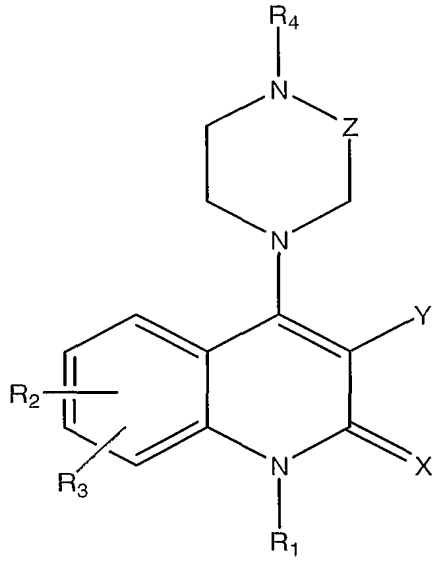
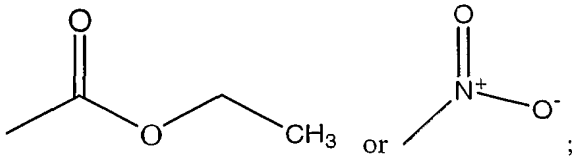


II

13. The method of claim 12, wherein the organic molecule comprises structure II, wherein

X = O;

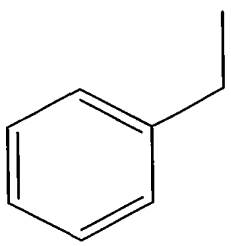
Y =



;

Z = C;

R_1 =



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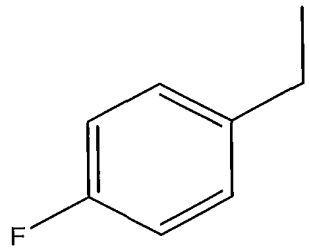
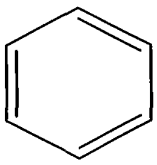
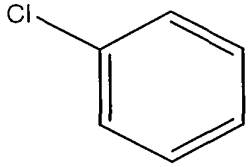


, CH_3, $-(CH_2)_2N(CH_3)_3$, or $-(CH_2)_3N(CH_3)_3$;

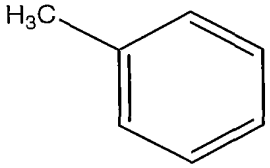
the ring comprising R_2 and R_3 =



,

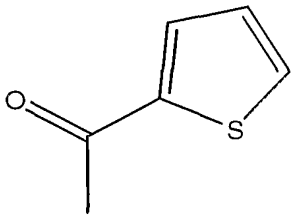


, or



; and

R_4 =



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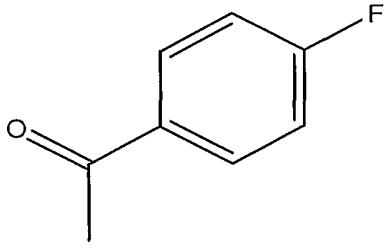

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14. A method of evaluating whether a compound is useful for preventing or treating type 1 diabetes, the method comprising

(a) determining whether the compound inhibits a macrophage migration inhibitory factor (MIF) in a mammal, then, if the compound inhibits the MIF,

(b) determining whether the compound inhibits development of type 1 diabetes.

15. The method of claim 14, wherein step (b) is performed by evaluating the effect of the compound on proliferation of splenic lymphocytes in the mammal.

16. The method of claim 14, wherein the compound is a protein.

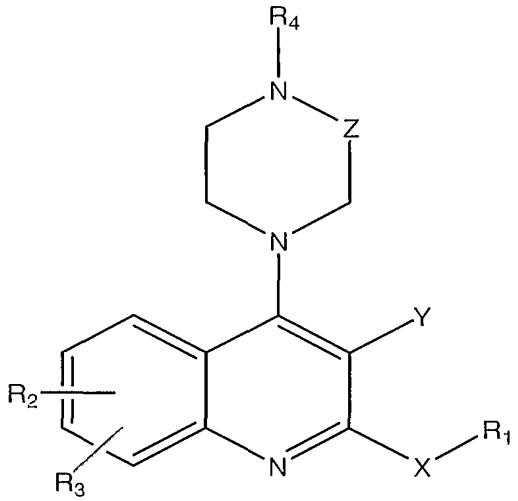
17. The method of claim 16, wherein the protein comprises an antibody binding site.

18. The method of claim 14, wherein the compound is a nucleic acid or mimetic.

19. The method of claim 18, wherein the nucleic acid or mimetic is an antisense, a ribozyme, an aptamer, or an interfering RNA.

20. The method of claim 14, wherein the compound is an organic molecule less than 1000 Dalton.

21. The method of claim 20, wherein the compound comprises the following structure I or II



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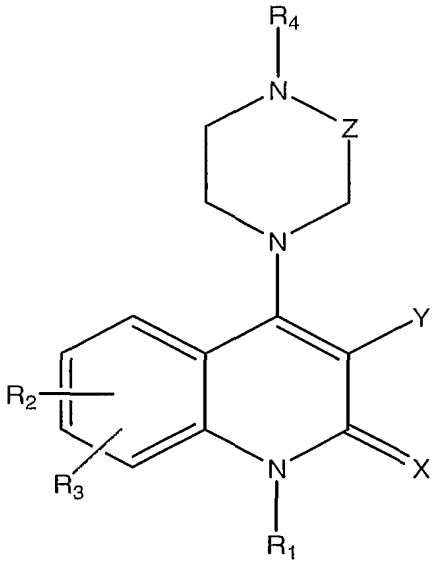

II

22. A kit comprising

(a) a pharmaceutical composition comprising the agent used to inhibit MIF in claim 1, and

(b) instructions for administering the composition to the mammal,

wherein the mammal has type 1 diabetes or is at risk for type 1 diabetes.

23. A kit comprising

(a) a pharmaceutical composition comprising the agent used to inhibit MIF in claim 12, and

(b) instructions for administering the composition to the mammal,

wherein the mammal has type 1 diabetes or is at risk for type 1 diabetes.

24. Use of the agent used to inhibit MIF in claim 1 for the manufacture of a medicament for the treatment of a mammal having type 1 diabetes or at risk for type 1 diabetes.

25. Use of the agent used to inhibit MIF in claim 12 for the manufacture of a medicament for the treatment of a mammal having type 1 diabetes or at risk for type 1 diabetes.